

REMARKS

In accordance with the foregoing, claims 27, 28 and 30 have been canceled. Claims 13 and 31 have been amended. Claims 1-15, 17-22, 31 and 32 are pending and under consideration.

REJECTION UNDER 35 U.S.C. §102:

Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oonishi (U.S. Patent No. 5,295,125).

The Office Action sets forth that Oonishi teaches a method of identifying a type of a disc, comprising: detecting an RPM (Rotation Per Minute) of the disc; and identifying a first disc type by comparing the RPM with a first reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

By way of review, Oonishi discloses "the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disc until the disk reaches a predetermined rotating speed as substrate discriminating means, a known rotating speed detecting system or circuit 70 which detects the rotating speed of the optical disk on the basis of an output signal of the rotary motor 60 concerning the rotating speed ω_0 , and the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disk until the disk reaches a predetermined rotating speed, on the basis of an output signal of the rotating speed detecting circuit 70 to discriminate the material of the disk substrate in accordance with whether the detected time t_1 or t_2 is longer or shorter than a predetermined reference time t_0 that is, whether a time difference from the reference time t_0 is positive or negative (see FIG. 6). The substrate discriminating circuit 71 is provided with a timer which starts the timing operation upon start of the rotation of the motor 60 and stops the timing operation when the predetermined rotating speed is reached or detected."(col. 7, line 64 to col. 8, line 10).

As noted above, in Oonishi, in order to discriminate the material of the disc, the driver has to retain at least one time reference t_1 or t_2 and a predetermined rotating speed ω_0 . In contrast, claim 1 sets forth that "detecting an RPM (Rotation Per Minute) of the disc; and identifying a first disc type by comparing the RPM with a first reference value as recited in claim 1. As such, it is respectfully submitted that Oonishi does not disclose the invention recited in claim 1.

Regarding claim 2, the Office Action sets forth that Oonishi teaches "identifying of the first disc type includes determining whether the disc is a DVD(-) type or a DVD(+) type (Oonishi teaches discriminating between a CD and a DVD. A DVD must be either a (+) or a(-).

By way of review, as acknowledged by the Examiner, Oonishi merely teaches “discriminating between a CD and a DVD”. The invention in Oonishi is to discriminate between a CD and a DVD but the present application is not. As such, Oonishi fails to teach “whether identifying of the first disc type includes determining the disc is a DVD(-) type or a DVD(+) type.”

Accordingly, it is respectfully submitted that Oonishi does not disclose the invention recited in claim 2.

Regarding claim 8, the Office Action sets forth that Oonishi teaches an apparatus identifying the type of the disc by comparing an RPM of the disc detected using a frequency signal generated at the motor with a first reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

By way of review, Oonishi discloses “the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disc until the disk reaches a predetermined rotating speed as substrate discriminating means, a known rotating speed detecting system or circuit 70 which detects the rotating speed of the optical disk on the basis of an output signal of the rotary motor 60 concerning the rotating speed ω_0 , and the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disk until the disk reaches a predetermined rotating speed ω_0 , on the basis of an output signal of the rotating speed detecting circuit 70 to discriminate the material of the disk substrate in accordance with whether the detected time t_1 or t_2 is longer or shorter than a predetermined reference time t_0 that is, whether a time difference from the reference time t_0 is positive or negative (see FIG. 6). In contrast, claim 8 sets forth that “a system controller identifying the type of the disc by comparing an RPM of the disc detected using a frequency signal generated at the motor with a first reference value. In Oonishi, the reference value is a predetermined time but in claim 8 the reference value is RPM. As such, it is respectfully submitted that Oonishi does not disclose the invention recited in claim 8.

REJECTION UNDER 35 U.S.C. §103:

Claims 4-5, 10-11, 13, 15, 17-18 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oonishi in view of Ono et al. (U.S. Patent No. 6,822,936).

Regarding claim 4, the Office Action sets forth that Ono et al. teaches measuring reflectivity of the disc; and identifying a second disc type between a one-time recordable type and a re-recordable type by comparing the reflectivity of the disc with a second disc with a second reference value (fig. 2 element 2090).

By way of review, Ono et al. discloses "after the optical disc is determined as DVD-RAM or DVDRW in determination 2090 (column 10, lines 26-28, also see Fig. 2 element 2090). As noted above, Ono et al. discloses "determination whether a DVD-RAM or a DVDRW comparing reflectivity." Both DVD-RAM and DVDRW are re-recordable types. It is different from "identifying a second disc type between a one-time recordable type and a re-recordable type by comparing the reflectivity of the disc with a second reference value" as recited in claim 4.

As such, it is respectfully submitted that the combination of Oonishi and Ono et al. does not disclose or suggest the invention recited in claim 4.

In addition, claims 5, 10, and 11 are deemed to patentable due at least to its depending from claim 4, as well as for the additional features recited therein.

Regarding claim 13, the Office Action asserts that Ono et al. teaches measuring an RPM of the disc to identify the disc format as a DVD(-) type if the RPM is lower than a speed reference value or as a DVD(+) type if the RPM is higher than the speed reference value (fig. 6 see also column 7 lines 65-68 and column 8 lines 1-6).

Claim 13 has been amended to clarify of the present invention.

By way of review, Oonishi discloses "discloses "the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disc until the disk reaches a predetermined rotating speed as substrate discriminating means, a known rotating speed detecting system or circuit 70 which detects the rotating speed of the optical disk on the basis of an output signal of the rotary motor 60 concerning the rotating speed ω_0 , and the substrate discriminating circuit 71 which detects, a time t_1 or t_2 required from the start of rotation of the optical disk until the disk reaches a predetermined rotating speed ω_0 , on the basis of an output signal of the rotating speed detecting circuit 70 to discriminate the material of the disk substrate in accordance with whether the detected time t_1 or t_2 is longer or shorter than a predetermined reference time t_0 that is, whether a time difference from the reference time t_0 is positive or negative (see FIG. 6). (col. 7, lines 65-68 and col. 8 lines 1-6). As noted above, Oonishi related to discriminate between different substrates such as CD or DVD but DVD(+) and DVD(-) can not tell from detected substrates because of the same substrates are used for both DVD(+) and DVD(-) types.

As such, it is respectfully submitted that the combination of Oonishi and Ono et al. does not disclose or suggest the invention recited in claim 13.

In addition, claim 15 is deemed patentable due at least to its depending from claim 13, as well as for the additional features recited therein.

Further, claim 32 is deemed patentable due at least the same reasons of claim 13, as well as for the additional features recited therein.

Claims 7, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oonishi in view of Ono et al.

Regarding claims 7, and 14, the Office Action acknowledges that Oonishi fails to disclose "the detection of the RPM is performed after converting a motor control mode rotating the disc into a CLV (Constant Linear Velocity) servo mode based on a wobble signal. However the Examiner takes Official Notice that to use a wobble signal for speed control is well known in the art and would have been obvious to use. The rationale is as follows: it would have been obvious to provide the apparatus of Ono et al. and Oonishi with wobble speed control because it is considered an equivalent alternative to other methods of speed control.

By way of review, the Examiner takes Official Notice that it is notoriously well known in the wobble speed control because it is considered an equivalent alternative to other methods of speed control. By taking Official Notice, the rejection is being based, in part, on the personal knowledge of the Examiner. The personal knowledge of the Examiner, when used as a basis for a rejection, must be supported by an affidavit as to the specifics of the facts of that knowledge when called for by the applicant. See, MPEP 2144.03, 37 C.F.R. § 1.104(d)(2). In short, the rules of the U.S. Patent and Trademark Office require that the Examiner must either support this assertion with an Affidavit, or withdraw the rejection. Therefore, it is further respectfully requested that the Examiner support the rejection with either an affidavit or a reference, or withdraw the rejection.

In addition, claim 20 is deemed patentable due at least to its depending from claim 17, as well as for the additional features recited therein.

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagawa et al. (US 2005/0270924) in view of Ogihara (U.S. Patent No. 6,868,051).

Claims 27 and 28 are cancelled.

OBJECTIONS TO THE CLAIMS:

As mentioned above, at page 7 of the Office Action, claims 3, 6, 9, 12, 19, 21-22 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, reconsideration of claims 3, 6, 9, 12, and 21-22 is respectfully requested based upon the reasons mentioned above.

Claim 31 has been amended to incorporate the canceled features of claim 30.

In view of the above amendment, it is respectfully requested that claim 31 be allowed.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By:



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